

Tomato Spotted Wilt Virus on Anthurium

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Tomato spotted wilt virus (TSWV) was recently found in diseased anthurium plants. Although nine species of thrips are vectors of TSWV, two that are important in Hawaii are the western flower thrips (*Frankliniella schultzei*) and the onion thrips (*Thrips tabaci*). TSWV is common in Hawaii in tomato, eggplant, lettuce, and many weeds.

Recognizing TSWV on anthurium

Small yellow-green patches 5–10 mm in diameter are the first symptom on leaves (Figure 1). As the disease progresses, these patches become circular, yellowish spots with shallow brown pitting on the spot surface (Figure 2). The undersurface of the leaf becomes yellow. The brown, necrotic edges of these spots become wider and more distinct. Circular spots 10–20 mm in diameter are common. The undersurface of these spots is yellow with brown areas. There may be large spots over 30 mm long that are completely brown with a bright yellow border.

Infected young leaves or flowers have water-soaked flecks, spots, and blights closely resembling typical bacterial blight symptoms (Figures 3 and 4). However, TSWV infections do not produce bacterial ooze, and the bacterial cells associated with bacterial blight are absent. After TSWV-infected plants are moved to a dry environment, most of the water-soaked spots will disappear.

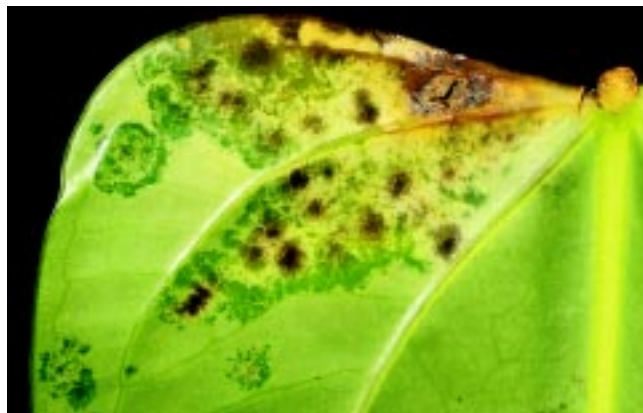
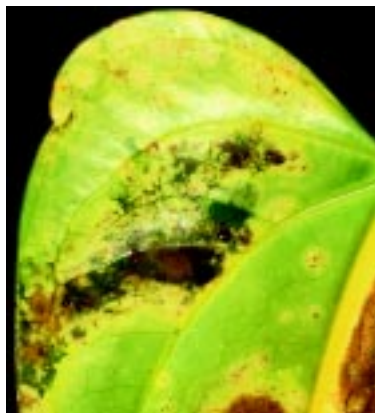
TSWV infections kill young shoots and sections of the plant. The virus was detected by ELISA tests from spots on mature leaves, blights on young leaves, symptomless areas of diseased leaves, and roots. Serological tests were positive for TSWV but negative for impatiens necrotic spot virus, which is in the same *Tospovirus* genus. The anthurium cultivars 'Aristocrat', 'Red Hot', 'Tropic Fire', and a few others were infected.



1. Nearly circular, yellow-green patches caused by TSWV.



2. Irregular edges on older spots caused by TSWV.



3 and 4. Water-soaked spots and blights caused by TSWV on young leaves.

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